

REMARKS

Reconsideration of this application is respectfully requested.

Claim Rejections based on §102

The Action rejects Claims 1, 3-5, 7 and 9 under 35 U.S.C. § 102 (b) as being anticipated by either Long, et al. (U.S. Pat. No.: 5,713,791) or Nakao (U.S. Pat. No.: 6,682,414). The Office Action states: “Claims 1, 3-5, 7 and 9 are rejected under 35 U.S.C. § 102(b) as being clearly anticipated by either Long or Nakao.” The Action offers no other rationale or discussion as to why the two aforementioned references serve as anticipatory references under §102(b). Applicants assert that neither reference taken individually discloses all elements of Applicants’ Claims, as required by §102. Applicants respectfully ask the Office to reconsider and withdraw this rejection based on the following arguments and foregoing amendments.

To anticipate a claim under §102, *each and every element* of the claim must be disclosed by a single prior art reference. Amended Claim 1 recites a load port transfer apparatus including:

a load port transfer arm comprising a robotic arm or mechanical interface arm configured to remove a wafer cassette from a load port of a tool, the load port transfer arm having a cover thereover; and a means for blowing air around said load port transfer arm.

Nakao does not disclose or suggest “a load port transport arm comprising a robotic arm or mechanical interface arm configured to remove a wafer cassette from a load port of a tool, the load port transfer arm having a cover thereover,” as required by Claim 1. Referring to Figure 6 of Nakao, Nakao discloses the use of a cover 11 to maintain a clean environment in an *article storage apparatus* B. Applicants assert that article storage apparatus B does not include a “load port transfer arm.” The article storage apparatus B cited in Nakao is defined as “one main rack body 6 having a plurality of article storage units 5 arranged vertically and horizontally for storing articles, and another main rack body 6 having a plurality of article storage units 5 arranged in a single horizontal row.” (Nakao, col. 3, lines 5-10). The article

storage apparatus B referenced by Nakao does not utilize a “robotic arm” or a “mechanical interface arm,” nor does it play any role in “removing wafer cassettes from the load port of a tool.” The only mechanism taught by Nakao for transporting articles does not “remove wafer cassettes from the load port of a tool,” but rather transports articles between storage modules.

The transport mechanism of Nakao is disclosed as a stacker crane 9, which includes:

“a carriage 9c movable in the sideways direction on a running rail 9a laid on the floor, with the upper end guided along a guide rail 9b installed on the ceiling. The carriage 9c includes a vertically movable transfer device 9d for transferring the articles between the article storage units 5 and conveyer device 8, and between the article storage units 5.” (Nakao, col. 3, lines 43-52).

The stacker crane 9 does not utilize a “robotic arm” or a “mechanical interface arm,” as required by Claims 1 and 7, nor does it “remove a wafer cassette from a load port of a tool.” As Nakao fails to disclose or suggest the use of a “load port transfer arm,” and instead merely discloses the use of an “article storage apparatus” and a “stacker crane,” Nakao also fails to teach a “load port transfer arm having a cover thereover,” as required by Claim 1.

Because Nakao does not disclose every element of Claims 1 and 7, i.e., “a load port transfer arm comprising a robotic arm or mechanical interface arm configured to remove a wafer cassette from a load port of a tool, the load port transfer arm having a cover thereover,” Claims 1 and 7 are not anticipated by Nakao. Reconsideration and withdrawal of the rejection of Claims 1 and 7, and each claim depending therefrom, are respectfully requested.

In the alternative, the Action rejects Claims 1, 3-5, 7 and 9 under §102(b) as being anticipated by Long. Applicants maintain that just as Nakao fails to disclose each requisite element of Claims 1 and 7, Long also fails to disclose each element of Claims 1 and 7.

Long describes a mechanism for transporting products between two separate cleanroom environments. (Long, col. 1, lines 63-67). Referring to Figure 6 of Long, Long specifically

discloses a modular section 60 with a *conveyance track* 62 mounted within each successive modular section 60. The conveyance track 62 disclosed by Long is used to convey products from one cleanroom to another. (Long, col. 5, lines 1-10). The conveyance track 62, as described in Long, takes the preferred form of “hanger rods 64 suspended from the ceiling of the conduit on a bracket 66 built into each conduit module.” (Long, Fig 6; Long, col. 5, lines 8-15).

Long fails to disclose or suggest “a load port transfer arm comprising a robotic arm or mechanical interface arm configured to remove a wafer cassette from a load port of a tool” as required by Claim 1 and Claim 7. A conveyance track 62 is used to transport objects between a series of modules and does not include a “load port transfer arm.” Simply, the conveyance track 62 described in Long does not utilize a “robotic arm” or a “mechanical interface arm,” as recited in Claim 1 or Claim 7, but rather takes the preferred form of “hangar rods 64 suspended from the ceiling of the conduit on a bracket 66.” Furthermore, the conveyance track 62 cited in Long is not designed “to remove a wafer cassette from a load port of a tool,” nor does the conveyance track 62 have a “load port transfer arm” with “a cover thereover,” as recited in Claim 1 or Claim 7.

Because neither Long nor Nakao individually disclose every element of Applicants’ Amended Claims 1 and 7, Applicants respectfully assert that neither Long nor Nakao anticipate Claims 1 and 7. It is submitted that Claims 1 and 7, and Claims 2-6 and 8-9, which depend therefrom, respectfully, are allowable.

Claim Rejections based on §103

The Action rejects Claims 2, 8, 11 and 12 under §103(a) as being unpatentable over either Long, et al. (U.S. Pat. No.: 5,713,791) or Nakao (U.S. Pat. No.: 6,682,414) in view of Thakur et. al., (U.S. Pat. No.: 6,623,538). The Action also rejects Claims 6, 10 and 13 under §103(a) as being unpatentable over either Long or Nakao in view of Thakur. As noted above, neither Long nor Nakao teach a “load port transfer arm comprising a robotic arm or mechanical

interface arm configured to remove a wafer cassette from a load port of a tool, the load port transfer arm having a cover thereover,” as recited in independent Claims 1 and 7. Like Claims 1 and 7, independent Claim 11 also recites a “load port transfer arm comprising a robotic arm or mechanical interface arm configured to remove a wafer cassette from a load port of a tool, the load port transfer arm having a cover thereover.” Therefore, Claim 11 is allowable for at least the reasons stated above in connection with Claims 1 and 7. Claims 2, 6, 8, 10, 12 and 13 depend from these independent Claims and are also allowable. Reconsideration and withdrawal of the rejection of these Claims are respectfully requested.

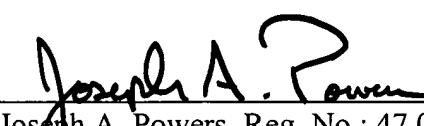
Conclusion

In view of the foregoing amendments and remarks, Applicant submits that this application is in condition for allowance. Early notification to that effect is respectfully requested.

The Commissioner for Patents is hereby authorized to charge any additional fees or credit any excess payment that may be associated with this communication to deposit account **04-1679**.

Respectfully submitted,

Dated: 10/28/04



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